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ABSTRACT

The full National Education Goals Report is a 246-page annual "report card" to the nation designed to focus on measurement: How well are we measuring up against the six national Goals? This 25-page executive summary is a companion document to the full report and attempts to compress its major findings. It is structured into three parts: (1) Part 1 lists each of the goals and states succinctly "What we now know" and "What we still need to know" about each. The report on each goal is accompanied by a single statistical figure graphically displaying the major known data. (2) Part 2 presents important additional information (textual and statistical) related to achieving the six National Education Goals and their associated objectives; (3) Part 3 is a statement concerning "The Federal Role" in achieving the Goals and includes a pie chart depicting the proportion of 1991 Federal resources allotted to programs that improve education/services during the preschool years, school years, and post high school years. (WTB)

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EXECUTIVE SUMMARY

GOALS REPORT

ED334281

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1991

Foreword

On behalf of the National Education Goals Panel, I am pleased to present our first annual report. The idea of an annual report card to the nation originated at the Education Summit in Charlottesville, Virginia, in September 1989. There the President and the nation's Governors agreed that establishing National Education Goals would capture the attention and resolve of Americans to restructure our schools and radically increase our expectations for student performance. But it was also recognized that adopting national goals would ultimately prove an empty gesture without a shared commitment to achieving them and to holding ourselves accountable for their success.

In July 1990, the National Education Goals Panel was created and charged with measuring our progress over ten years toward achieving the six National Education Goals. The Panel includes six Governors, four members of the Administration, and four members of Congress. During the past year we have initiated and participated in an extraordinary national debate about the role of educational assessment and the need for national standards against which to measure the performance of individuals as well as school systems. This debate continues and future reports will reflect our ongoing learning and consensus.

The purpose of this report is to focus on measurement — how well we are measuring up against the Goals. But measurement is not an end in itself. The process attains its full value only when the information generated is used as a tool to improve results — as a way to empower individuals and motivate greater effort toward higher levels of performance.

By presenting this sober and accurate diagnosis of our educational performance, we hope to generate a sense of resolve and of urgency for action. To prosper as individuals and as a nation, we must have world-class standards. Accurate assessment can help us gauge where our efforts are falling short and suggest areas where performance must be improved.

Achieving these Goals requires a sustained partnership of government policy and individual and community commitment. Such a partnership requires that we make education the most important business in the nation, in our states, and in our individual lives. The shape and course of our future will be determined by our collective response. This report is dedicated to the students, parents, educators, policymakers, and business and community leaders who care enough about the future to accept the challenge of aiming for and attaining world-class standards — of achieving excellence.

Sincerely,

Roy Romer, Chair (August 1990-August 1991)
National Education Goals Panel, and
Governor of Colorado

Governors

Carroll A. Campbell, Jr.,
Chair
(August 1991-August 1992)
National Education
Goals Panel, and
Governor of South Carolina
John Ashcroft,
Governor of Missouri
Evan Bayh,
Governor of Indiana
Terry E. Branstad,
Governor of Iowa
Booth Gardner,
Governor of Washington

Members of the Administration

Lamar Alexander,
Secretary of Education
Richard G. Darman,
Director, Office of
Management and Budget
Roger B. Porter,
Assistant to the President
for Economic and Domestic
Policy
John H. Sununu,
White House Chief of Staff

Members of Congress
(ex officio)

Bob Dole,
U.S. Senate Minority Leader
Richard A. Gephardt,
U.S. House Majority Leader
Robert Michel,
U.S. House Minority Leader

Introduction

Americans believe strongly in the power of education. Almost 90 percent, according to a recent Gallup Poll, rate a world-class education system as critical to the nation's future. More than 80 percent believe that local public schools should conform to national standards of achievement. And yet the evidence today is clear that we do not yet have a world-class system.

A mere 14 percent of American eighth graders can solve problems involving fractions, decimals, percentages, or simple algebra.

A third of eighth graders are unable to figure the cost of a meal from a menu.

A third of eleventh graders cannot write a coherent paragraph about themselves.

If the nation is to measure up to the technical and economic demands of the next century, we must all get involved — public officials, educators, parents, business and community leaders, and students alike — to meet this challenge. If we want the best education system in the world, we must transform ourselves, young and old, into a nation of learners.

Toward this end, the nation's Governors and the President of the United States have launched an unprecedented ten-year effort. At the heart of this effort are six National Education Goals — six ambitious targets for us to reach.

Much as corporate officers regularly report their progress to stockholders, the National Education Goals effort calls for annual reports to be made to the American public and their elected officials showing how the nation and the states are performing on each of the six Goals. The Governors will also issue individual state reports that assess the outcomes and specific reforms within their states.

The point of these reports is not to create an artificial competition that ranks and compares states with one another. Such an approach will not get us where we need to go. Rather, the annual reports will measure progress against past performance and against world-class standards.

Most Americans are aware that scores on existing national tests have declined or stagnated during the past several years. But few associate such declines with the education of their own children or the performance of their own schools. And why should they? They have been lulled into a false sense of security by report cards showing above-average performance by their children. They assume that schools and students elsewhere must be the problem.

What we as a nation have failed to grasp is that simply being above average in the United States or merely improving upon last year's standings does not mean we have the knowledge or skills to prosper in an arena of increased global competition. We must stop settling for mediocrity.

Instead, we must reach higher for world-class standards of educational performance.

This first report establishes the baseline for the National Education Goals — where we stand today in relation to our six Goals. It shows improvements in some important areas. The percentage of students completing a high school degree or its equivalent, for example, is at an all-time high. And student drug use overall has declined substantially.

"We must stop settling for mediocrity. Instead, we must reach higher for world-class standards of educational performance."

But such gains pale in comparison to our educational shortcomings. New data released for this report reveal that fewer than one in five students today can be considered competent in mathematics. American students also rank significantly behind their peers in other advanced countries in science. Even worse, information is simply not available in many cases to tell us where we stand. We lack data on critical topics such as young children's readiness for school, adults' work-force skills, and what college graduates know and can do. Accurate and uniform information on the baseline performance of states was also not available for many of the Goals.

Filling these gaps in our knowledge is as important for forming an action agenda as focusing on those areas where data are available. Future reports must replace these voids with direct measures to tell us whether we are doing what we must to reach our Goals.

Given the distance that still separates us from world-class performance, this report sounds a call to action. It challenges us to translate an abstract belief in the power of education into actions — policies, practices, and habits that value learning. It challenges us to become a nation of learners.

The National Education Goals

Goal 1: By the year 2000, all children in America will start school ready to learn.

Objectives:

- All disadvantaged and disabled children will have access to high quality and developmentally appropriate preschool programs that help prepare children for school.
- Every parent in America will be a child's first teacher and devote time each day helping his or her preschool child learn; parents will have access to the training and support they need.
- Children will receive the nutrition and health care needed to arrive at school with healthy minds and bodies, and the number of low-birthweight babies will be significantly reduced through enhanced prenatal health systems.

Goal 2: By the year 2000, the high school graduation rate will increase to at least 90 percent.

Objectives:

- The nation must dramatically reduce its dropout rate, and 75 percent of those students who do drop out will successfully complete a high school degree or its equivalent.
- The gap in high school graduation rates between American students from minority backgrounds and their non-minority counterparts will be eliminated.

Goal 3: By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter, including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

Objectives:

- The academic performance of elementary and secondary students will increase significantly in every quartile, and the distribution of minority students in each level will more closely reflect the student population as a whole.
- The percentage of students who demonstrate the ability to reason, solve problems, apply knowledge, and write and communicate effectively will increase substantially.
- All students will be involved in activities that promote and demonstrate good citizenship, community service, and personal responsibility.
- The percentage of students who are competent in more than one language will substantially increase.
- All students will be knowledgeable about the diverse cultural heritage of this nation and about the world community.

Goal 4: By the year 2000, U.S. students will be first in the world in science and mathematics achievement.

Objectives:

- Math and science education will be strengthened throughout the system, especially in the early grades.
- The number of teachers with a substantive background in mathematics and science will increase by 50 percent.
- The number of U.S. undergraduates and graduate students, especially women and minorities, who complete degrees in mathematics, science, and engineering will increase significantly.

Goal 5: By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

Objectives:

- Every major American business will be involved in strengthening the connection between education and work.
- All workers will have the opportunity to acquire the knowledge and skills, from basic to highly technical, needed to adapt to emerging new technologies, work methods, and markets through public and private educational, vocational, technical, workplace, or other programs.
- The number of quality programs, including those at libraries, that are designed to serve more effectively the needs of the growing number of part-time and mid-career students will increase substantially.
- The proportion of those qualified students (especially minorities) who enter college, who complete at least two years, and who complete their degree programs will increase substantially.
- The proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively, and solve problems will increase substantially.

Goal 6: By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

Objectives:

- Every school will implement a firm and fair policy on use, possession, and distribution of drugs and alcohol.
- Parents, businesses, and community organizations will work together to ensure that schools are a safe haven for all children.
- Every school district will develop a comprehensive K-12 drug and alcohol prevention education program. Drug and alcohol curriculum should be taught as an integral part of health education. In addition, community-based teams should be organized to provide students and teachers with needed support.

Part One

Goal 1
Readiness for School

By the year 2000, all children in America will start school ready to learn.

All children are born with the desire to learn. But they need to develop in several important ways to succeed in their first year of school. They must be healthy and be able to participate in school activities. They must possess the social and emotional skills to get along with others in the classroom. They must be able to use language to communicate effectively with other children and adults. And they must have some general knowledge and understanding of the immediate world around them.

The encouragement of parents and a good beginning in school are critical to all future learning. Children who succeed in the early years of school bring a set of attitudes and behaviors — such as creativity, independence, and curiosity — that foster further learning. When children falter in their first classroom experiences, however, they can fall behind in class and begin to withdraw from the world of learning. Problems multiply as academic failure, negative behavior, and low expectations feed on one another.

Unfortunately, though we know which qualities promote success in kindergarten and sustain further learning, we have never attempted to assess systematically the degree to which young children in the United States are ready for school. Measuring the social and emotional well-being — and even general knowledge — of 3- to 5-year-olds is a considerable challenge.

"We cannot afford to wait until our little ones start formal schooling to reach out to them."

DEBRA H. HOUSTON
MAINE ASSOCIATION OF DIRECTORS OF SERVICES TO EXCEPTIONAL CHILDREN
PITTSFIELD, MAINE

What We Now Know

Because we currently lack the tools to measure readiness for school, we must report a grade of incomplete on the first of the nation's six National Education Goals. This is in the face of significant concern that many children are at risk of entering their first year of school without the skills necessary for classroom learning.

What We Still Need to Know

In future years, the National Education Goals Panel is committed to finding accurate, direct measures of children's readiness for school — in terms of their physical, emotional, social, and intellectual development — to fill the void in our current base of knowledge. The technical challenges involved in properly assessing young children are many. There are also valid concerns about minimizing the burdens of testing on children and ensuring that results be used to create a national profile and not to place individual children. We believe it is not only possible to create such a measurement system, it is necessary. Having reliable information about young children's readiness for school is essential to ensure that all children have an opportunity to succeed as part of a nation of learners.

Goal 2
High School Completion

By the year 2000, the high school graduation rate will increase to at least 90 percent.

To become a true nation of learners, we must encourage all of our children to finish high school. Youths who drop out face the prospect of low-paying jobs, chronic unemployment, and limited opportunities for advancement. They can expect to earn $200,000 less during their lifetimes than students who graduate. And these lost earnings can reach into the billions for each class of students that moves through our schools. Living on the edge of the nation's economy, such youths are susceptible to teen pregnancy, crime, and despair.

Dropouts also inflict substantial burdens on society. Their diminished earnings and restricted opportunities reduce tax revenues and generate added social costs for such purposes as public assistance, medical care, and crime prevention.

In the future, new technologies and job requirements will further increase the skill requirements of workers. Though a high school degree is no guarantee of competence, the lack of one is a clear sign that a person does not have the skills and knowledge needed in the workplace.

The percentage of students completing high school has been inching up in recent years, especially for Black students. However, we need to make much greater gains in the 1990s than we did during the 1980s to achieve our goal of a 90 percent completion rate.

Dropping out is also a reversible decision. Youths can return to a regular high school or complete their degrees by enrolling in alternative programs of study and obtaining high school credentials. The General Educational Development (GED) program, for instance, gives those who have not completed school the opportunity to change the future by earning a high school equivalency certificate.

"Every day we allow to go by without addressing this problem we allow a generation of students to fall further and further behind."

NOREEN O'CONNOR
VERMONT COUNCIL ON
VOCATIONAL-TECHNICAL EDUCATION
MONTPELIER, VERMONT

What We Now Know

- Between 1975 and 1990, the number of all 19- and 20-year-old students completing a high school degree or its equivalent rose from 81 to 83 percent.
- Among Blacks, the completion rate rose from 66 to 78 percent during roughly the same period.
- Hispanic completion rates, however, have remained essentially unchanged at approximately 60 percent.
- Nearly half of the 1980 sophomores who dropped out returned and completed high school within the following six years.

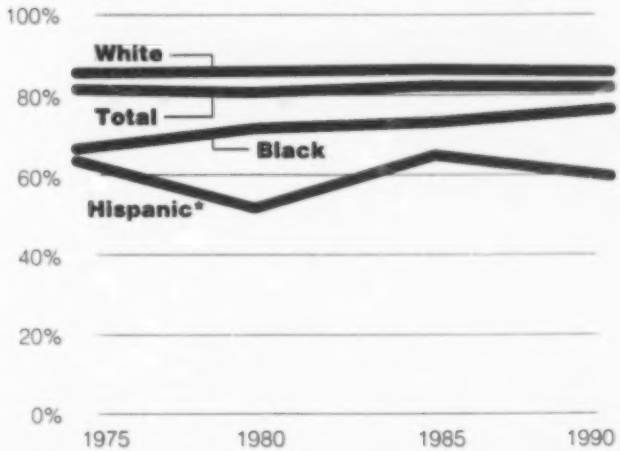
What We Still Need to Know

We still need reliable, consistent information about how many youths drop out and fail to complete high school for each state. Current state data are not uniform or comparable. We must remedy inaccuracies and establish common definitions throughout the country of those who complete high school and those who drop out.

THE NUMBER OF BLACKS COMPLETING HIGH SCHOOL INCREASED DRAMATICALLY FROM 1975 TO 1990, WHILE THE COMPLETION RATE FOR WHITES INCREASED SLIGHTLY. COMPLETION RATES FOR HISPANICS REMAINED LOWER THAN THOSE FOR OTHER GROUPS.

High School Completion Trends

Percent of 19- to 20-year-olds who have completed high school, 1975 to 1990



* Hispanic rates may vary more than rates for other groups because of small sample size.

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS, 1991

Goal 3
Student Achievement and Citizenship

By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter, including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

Creating a world-class education system means finding out what students actually know and can do. But determining this is not so simple. The kind of information needed goes beyond traditional methods of testing and reporting. We need to specify our expectations for student performance, making sure that they are high enough to match the highest levels in the world and we need to determine how many students meet these expectations.

The third National Education Goal focuses on the five subjects of English, science, mathematics, history, and geography. They represent the core content that all students need to master as they move through formal school — the subjects that provide them with a foundation for future academic study and competence in their subsequent jobs. This report reveals for the first time the gap between how our students actually perform in one of these subjects — mathematics — and how they should perform to be considered competent for their grade. This gap is enormous.

While these five subjects constitute an important part of what schools should offer students, they are not all that schools need to offer. A full appreciation of the fine arts and mastery of one or more foreign languages are examples of additional competencies that our schools must foster if we are to produce fully educated and well-rounded citizens of tomorrow.

We are also reporting some disappointing information about signs of good citizenship among young Americans. Citizenship represents another outcome of schooling that is, in many ways, as essential for our future as is competence in subject areas. The social, ethical, and political challenges that confront Americans today, as well as the diversity of our people, make it more important than ever that, as a nation of learners, we become an informed and involved people.

"The results in this report are sobering. Only 18 percent of American eighth graders have the math knowledge they need."

ROY ROMER
GOVERNOR OF COLORADO

What We Now Know

- Fewer than one in five students in grades four, eight, and twelve has reached the competency standard in mathematics.
- However, the number of Advanced Placement exams taken by high school juniors and seniors in English, mathematics, science, and history has increased by 51 percent since 1986.
- Only 48 percent of young adults between 18 and 20 years of age are registered to vote, compared to 70 percent of all U.S. Citizens 18 or older.

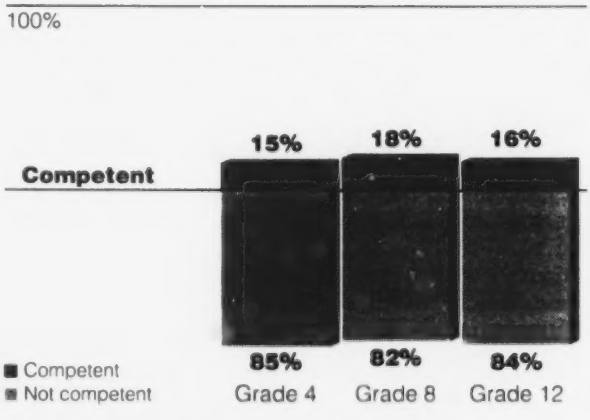
What We Still Need to Know

We have only a limited profile so far of student mastery of the five subjects in our third Goal. We know the most about proficiency in mathematics, where an initial standard of competence has been established. But no such standards of performance exist in the other subject areas. We need to establish these standards, along with a voluntary national system of examinations (not a single national test) to tell us whether or not the standards are being met. Only then will we see where our educational efforts are succeeding and where they are falling short.

FEWER THAN ONE IN FIVE STUDENTS IN GRADES 4, 8, AND 12 HAS REACHED THE NATIONAL EDUCATION GOAL OF DEMONSTRATING COMPETENCY IN MATHEMATICS.

Competency in Mathematics

Percent of 4th, 8th, and 12th graders who are competent in mathematics, 1990



SOURCE: NATIONAL ASSESSMENT GOVERNING BOARD, 1991

Goal 4
Science and Mathematics

By the year 2000, U.S. students will be first in the world in science and mathematics achievement.

As the world becomes increasingly competitive, it is essential for all Americans to be proficient in science and mathematics. Mastery of these subjects stimulates innovation across all sectors of our society and spawns discoveries that aid in our nation's security and benefit our environment. For these reasons we have set a separate Goal that our students will be second to none in these areas.

Unfortunately, data from international assessments conducted during the 1980s point to relatively poor achievement by American students compared with youths in other countries.

Achievement in science and mathematics is not limited to those who are born with special talents. In a nation of learners every citizen should demonstrate competence in these subjects. Indeed, our quality of life is endangered when citizens cannot make informed decisions on issues that are increasingly shaped by science, mathematics, and related technologies. Fluency in science and mathematics gives an individual powerful tools with which to adapt in a world of rapidly changing knowledge.

> *"We must measure ourselves against the world's best, and we must measure up."*
>
> CARROLL A. CAMPBELL, JR.
> GOVERNOR OF SOUTH CAROLINA

What We Now Know

- In a five-nation study of 13-year-olds in 1988, U.S. students ranked fourth in science achievement and last in mathematics.
- American 14-year-olds fell near the bottom of a 17-nation study of science achievement conducted between 1983 and 1986.
- Students from 12 nations significantly outperformed U.S. 13-year-olds in one or more areas of mathematics in a 1980-1982 study.

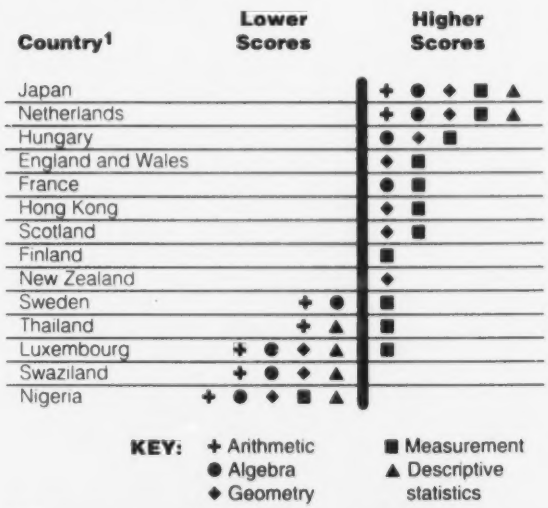
What We Still Need to Know

We need more current data on international achievement in science and mathematics. Results from the first of several new surveys to be conducted between now and the year 2000 will be reported next year. We also need better information about methods used to teach science and mathematics in this country and how they differ from methods used in nations whose performance is better than ours.

IN THE EARLY 1980s, AMERICAN 13-YEAR-OLDS WERE OUTPERFORMED IN ALL AREAS OF MATHEMATICS BY STUDENTS IN JAPAN AND THE NETHERLANDS.

International Mathematics Achievement Comparisons

13-Year-Olds, 1980 to 1982



[1] Fewer than five mathematics areas next to a country indicates that the country's score in the particular area was not significantly different from the U.S. score. Israel does not appear on this exhibit, since Israeli students' scores were not significantly different from American students' scores in any of the five areas.

SOURCES: INTERNATIONAL ASSOCIATION FOR THE EVALUATION OF EDUCATIONAL ACHIEVEMENT, 1989; NATIONAL CENTER FOR EDUCATION STATISTICS, 1991

Goal 5
Adult Literacy and Lifelong Learning

By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.

As we become a nation of learners, we must pay as much attention to the education of adults as we do to that of children. Americans tend to associate adult education with acquiring minimum literacy skills such as reading a newspaper, interpreting a map, or performing simple arithmetic. And it is true that we must ensure that all Americans are functionally literate. But this target alone is not good enough if we are to prosper in the 21st century. We must all add to our skills.

Nearly 85 percent of America's workers for the year 2000 are already in the work force. The knowledge and skills they possess will be crucial factors in our success or failure in the global marketplace. Tomorrow's standard of living thus depends on the education and training of today's workers.

Recent surveys, however, suggest that while most Americans have the most basic fundamental literacy skills, far fewer are able to perform more complex tasks that require them to process and synthesize many pieces of information.

"We need to move from 'a nation at risk' to 'a nation of students.'"

LAMAR ALEXANDER
U.S. SECRETARY OF EDUCATION

Our future also depends on the performance of America's higher education system. Our colleges and universities are this nation's prime knowledge engine. They need to produce graduates who are as learned as those anywhere in the world.

What We Now Know

- In two surveys of American adults, the vast majority were able to perform tasks such as locating a particular fact from a newspaper article, matching a money-coupon to a shopping list, or adding two entries on a bank deposit slip.
- But most adults were unable to carry out more complex tasks such as interpreting the main argument from a lengthy newspaper column, using a bus schedule to determine how long it would be before the next bus arrived at a desired destination, or using a page from a shopping catalog to fill out an order form and then calculate the costs of a number of items.

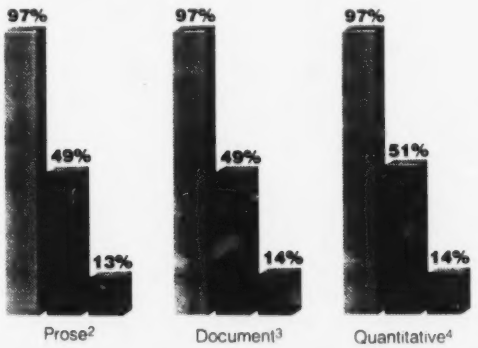
What We Still Need to Know

We are still largely ignorant about the nation's standing relative to this Goal. We need more recent data on the literacy levels of all adults for the nation and for individual states. (Such information is expected in 1993.) We also need state and national data on how well the knowledge, skills, and attitudes of American workers compare to those of workers in other nations, especially those that are our prime economic competitors. And we need to know what our college students have learned by the time they graduate.

WHILE MOST AMERICANS HAVE MASTERED BASIC LITERACY SKILLS, FEW CAN PERFORM MORE COMPLEX, ANALYTICAL TASKS.

Literacy Achievement

Percent of all young adults[1] who scored at or above three levels, 1985



[1] Includes persons who were 21- to 25-years-old during 1985
[2] Prose literacy tasks require readers to understand and use information contained in texts such as newspapers and pamphlets
[3] Document literacy tasks require readers to locate and use information contained in materials such as tables, charts, and maps
[4] Quantitative literacy tasks require readers to perform arithmetic computations using numbers printed in materials found in everyday situations

SOURCE: EDUCATIONAL TESTING SERVICE, 1990

Goal 6
Safe, Disciplined, and Drug-free Schools

By the year 2000, every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.

For our schools to fulfill their vital educational mission, they must provide teachers and students with an environment that is safe, disciplined, and drug-free. No school can function effectively in an atmosphere where illicit drugs are commonly sold or used, or where crimes against teachers and students are pervasive, or where classes are regularly disrupted.

Recent data show that the nation has made some progress in this area during the 1980s. But there is still much to be done.

Creating safe, disciplined, and drug-free schools will not guarantee that more students complete high school, or that academic achievement will increase. But we have little hope of reaching these other Goals if we do not achieve Goal 6.

"Kids who come to school high on drugs or alcohol do not come prepared to learn."

MARIO J. GANGI
NEW JERSEY SCHOOL BOARDS ASSOCIATION

What We Now Know

- Marijuana use at school by 12th graders dropped from 21 percent in 1980 to 6 percent in 1990.
- Nevertheless, in 1989, about three in 10 12th graders reported that alcohol and marijuana were easy to obtain in their schools.
- In a recent survey of crime and violent acts, 42 percent of high school seniors reported having had property stolen at school, 14 percent reported being injured without a weapon being used, and 6 percent said they were injured with a weapon.
- Black students are much more likely than Whites or Hispanics to be victims of violent acts at school involving weapons.
- The vast majority of public school teachers feel safe in their schools, though in a recent survey eight percent reported being threatened with injury and two percent reported being physically attacked during a 12-month period.
- Teachers in cities are more likely than those in other communities to feel unsafe in their schools (especially after school hours) and to report being verbally abused or threatened with injury.

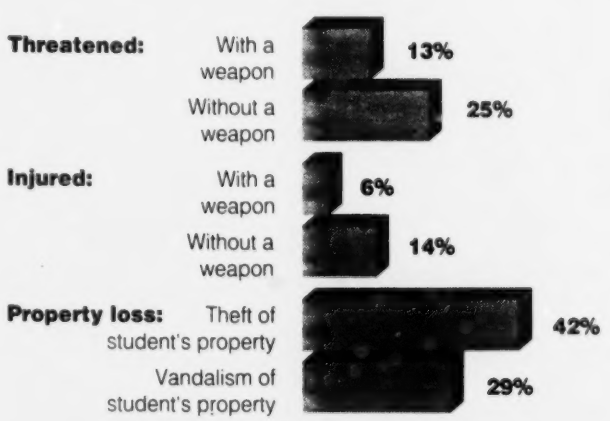
What We Still Need To Know

We need better information at the state level about how safe, disciplined, and drug-free schools are, and we need these data to be collected and reported regularly and in a comparable manner by each state.

SUBSTANTIAL NUMBERS OF HIGH SCHOOL SENIORS ARE VICTIMS OF VIOLENT ACTS, THEFTS, AND VANDALISM AT SCHOOL.

Student Victimization

Percent of high school seniors who reported being victimized in the following ways at school during the previous year, 1990



SOURCE: UNIVERSITY OF MICHIGAN, 1991

Part Two

This section presents important additional information related to achieving the six National Education Goals and their associated objectives.

Goal 1

Readiness for School

The first five years of life are critical in determining whether children enter school "ready to learn." Being physically healthy and well-nourished and having a home environment that orients them to the world of learning increase the likelihood that young children will be adequately prepared to begin formal schooling. Low-income and disabled children in particular need access to quality preschool education programs.

Health and Nutrition

- Seven percent of the infants born in the U.S. in 1988 had low birthweights (a condition that may increase their risk of developing learning problems later in life). Black infants were almost twice as likely to be below the standard for low birthweight as were White infants.
- While most young children visit a doctor regularly, 18 percent of all 1- to 4-year-olds in 1988 had not visited a doctor during the previous 12 months.
- The majority of 1- to 5-year-olds in 1986 received less than the recommended dietary allowance of iron and calcium in their diets.

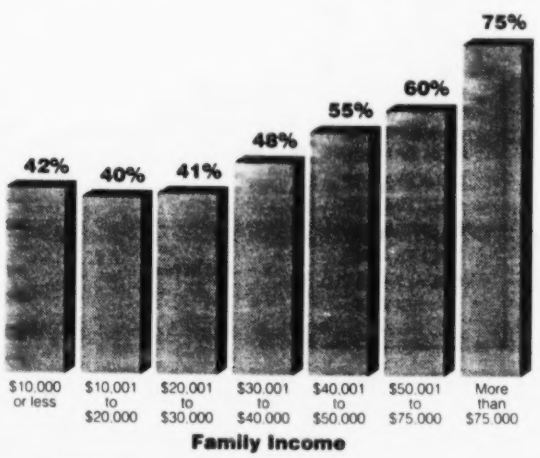
Family Activities With Children

- Roughly three-fourths of all parents (or other family members) in the U.S. read to their preschool children regularly, while three of every five teach them letters, words, or numbers. Only about one in five,

ONLY ABOUT FOUR IN TEN 3- TO 5-YEAR-OLDS FROM FAMILIES WITH INCOMES OF $30,000 OR LESS WERE ENROLLED IN PRESCHOOL IN 1991.

Preschool Participation

Percent of 3- to 5-year-olds enrolled in preschool[1], 1991

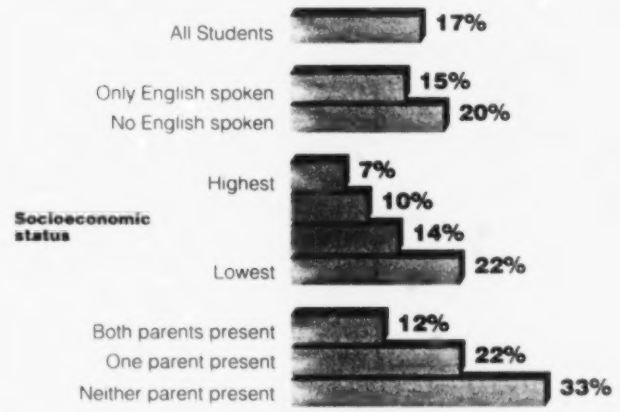


[1] Does not include children enrolled in kindergarten

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS, 1991

Factors Related to Dropping Out

Percent of the 1980 sophomore class who dropped out, by selected characteristics



SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS, 1989

THE ABSENCE OF PARENTS FROM THE HOME, LOW SOCIOECONOMIC STATUS, AND LIMITED PROFICIENCY IN SPEAKING ENGLISH APPEAR TO INCREASE THE LIKELIHOOD OF STUDENTS DROPPING OUT OF HIGH SCHOOL.

however, frequently take their children on visits to art galleries, museums, or historical sites.

Preschool Programs

- Only about forty percent of 3- to 5-year-olds from low- and middle-income families (family incomes of $30,000 or below) attended preschool in 1991, compared with 75% of children from families with incomes above $75,000.
- About half of all 3- to 5-year-olds with disabilities attended preschool programs in 1991.

Goal 2

High School Completion

Factors in the home appear to play a large role in the decision to stop coming to school and not to enroll when the school year starts again. Here we present data on the number of youths who drop out of school and on recent trends in this statistic.

- About 12 percent of all 16-to-24-year-olds in 1990 were high school dropouts. Blacks have slightly higher dropout rates than Whites. Hispanics have substantially higher dropout rates than either Blacks or Whites.
- Since 1975, dropout rates have been falling slowly for Whites (from 11 to 9 percent) and more quickly for Blacks (from 23 to 13 percent).
- Limited English proficiency, low socioeconomic status, and the absence of parents from the home are all factors which appear to increase the likelihood that students will drop out of school.

Goal 3

Student Achievement and Citizenship

We cannot yet report the percentage of students who are competent in subjects other than mathematics. However, we can describe recent national achievement trends in reading, writing, and science, as well as in mathematics. We also present data on Advanced Placement results in the fine arts and foreign languages, as well as trends in high school course completion.

Trends in Writing Achievement

Average writing score on a scale of 0 to 500 for students in grades 4, 8, and 11, 1984 to 1990

	1984	1990	Change[1]
Grade 4			
All students	179	183	NS
Black	154	155	NS
Hispanic	163	168	NS
White	186	191	NS
Grade 8			
All students	206	198	-
Black	190	182	NS
Hispanic	191	189	NS
White	210	202	-
Grade 11			
All students	212	212	NS
Black	195	194	NS
Hispanic	188	198	NS
White	218	217	NS

1 - means statistically significant decrease
NS means no statistically significant change

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS, 1991

WRITING SCORES DECLINED FOR EIGHTH GRADERS BETWEEN 1984 AND 1990. SCORES FOR FOURTH AND ELEVENTH GRADERS REMAINED RELATIVELY UNCHANGED.

Student Achievement Trends

• Science and mathematics achievement have improved somewhat over the past decade. Between 1977 and 1990, science achievement rose for 9-year-olds and 13-year-olds, while remaining the same for 17-year-olds, as measured by scores on the National Assessment of Educational Progress (NAEP). Mathematics achievement improved for all three age groups between 1978 and 1990.

• Reading scores declined for 9-year-olds between 1980 and 1990, and showed little change for 13-year-olds and 17-year-olds. Writing scores went down for eighth graders between 1984 and 1990, while remaining about the same for 4th and 11th graders.

Advanced Placement Results

• The number of Aadvanced Placement exams taken in foreign languages and fine arts increased between 1981 and 1991. But only seven foreign language exams and two fine arts exams were taken for every 1,000 students enrolled in 11th and 12th grades in 1991.

High School Course Completion

• The percent of high school graduates who completed challenging academic courses in English, mathematics, science, and history increased substantially between 1982 and 1987. The percent who completed courses in foreign languages grew substantially during this period and increased slightly in the fine arts.

Goal 4

Science and Mathematics

We cannot improve achievement in science and mathematics in this country without changing the way these subjects are taught. More time needs to be spent on instruction (especially in the early grades). Classrooms must have the necessary facilities and equipment. And instructors must be knowledgeable about the subjects they are teaching. The performance of our

higher education system also needs to improve. In particular, we must increase the number of science and mathematics graduates in the U.S., especially among women and minority groups.

Science and Mathematics Instructional Practices

- In 1986, seven out of ten 3rd grade teachers reported spending two hours or less on weekly science instruction, while 6% reported spending no time on science instruction.
- The average amount of time per day devoted to science instruction in Grades 4 to 6 was about a half hour in 1985-86.
- A 1990 survey of fourth and eighth graders shows that mathematics instruction frequently runs counter to the recommendations of mathematics education experts by failing to emphasize reasoning and analytical skills or the communication of mathematical ideas.

Science and Mathematics Teacher Preparation

- Only 61 percent of all high school science teachers in 1988 held undergraduate or graduate degrees in science. Only 42 percent of all high school mathematics teachers held mathematics degrees.

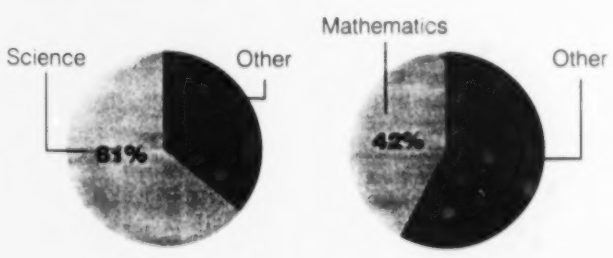
Degrees in Science and Mathematics

- The number of science graduate degrees increased by 12 percent between 1979 and 1989, while undergraduate degrees grew by 5 percent. Graduate degrees in mathematics decreased by 8 percent and undergraduate degrees grew by 29 percent.
- Women earned 15 percent more science degrees in 1989 than they did in 1979 and 36 percent more mathematics degrees.
- The number of Asian/Pacific Islander students receiving degrees in science and mathematics almost tripled during these years, while the number of Hispanics receiving degrees increased by about half. Blacks earned 2 percent more science

ONLY FOUR IN TEN HIGH SCHOOL MATHEMATICS TEACHERS IN 1988 HELD DEGREES IN MATHEMATICS. SIX IN TEN SCIENCE TEACHERS HELD SCIENCE DEGREES.

Science and Mathematics Teacher Preparation

Percent of all high school science and mathematics teachers who have a degree in the field in which they teach, 1988



All high school science teachers | **All high school mathematics teachers**

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS, 1991

degrees and received 18 percent more mathematics degrees in 1989 than they did in 1979.

Goal 5

Adult Literacy and Lifelong Learning

For the nation to achieve our literacy and lifelong learning Goal, more Americans will have to participate in adult education and training programs. We will also have to increase the percentage of young and older adults — especially those from working class, low-income, and minority backgrounds — who enter postsecondary institutions and complete quality degree programs.

Adult Education and Training

- One in five adults took an adult education course during 1990-91 to upgrade their skills in their current job.
- Three in ten adult education participants received some form of employer support, such as time off from work. Highly educated employees were more likely to receive employer support than less educated workers.
- During 1990-91, one in three adults felt that their work schedule prevented them from taking more adult education courses. Other reasons cited were the cost of classes, their locations, the times they were held, and lack of child care.

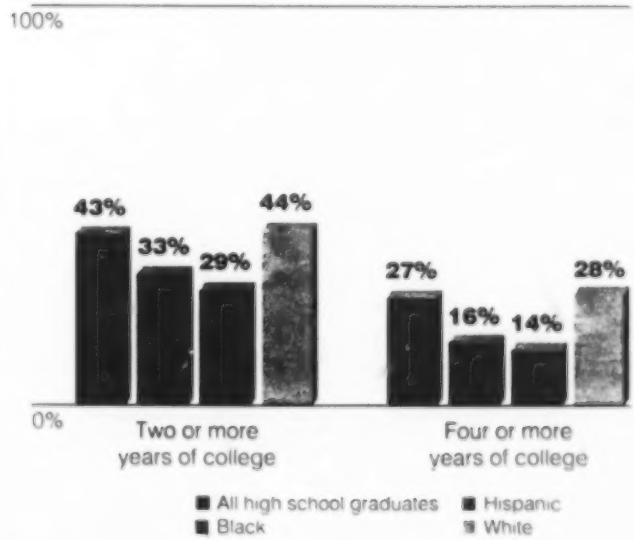
College Enrollment and Completion

- Six out of ten high school graduates in 1989 immediately enrolled in college. Enrollment rates were somewhat lower for Blacks (48 percent) and Hispanics (52 percent).
- Black and Hispanic high school graduates are only about half as likely as Whites to complete four years or more of college. In 1990, 28 percent of White high school graduates (ages 25-29) reported having finished four or more years of college, compared with 16 percent of Blacks and 14 percent of Hispanics.

College Completion

Percent of high school graduates aged 25 - 29 who have completed two or more years of college and four or more years of college, 1990

NEARLY THREE IN TEN 25- TO 29-YEAR-OLD HIGH SCHOOL GRADUATES HAVE COMPLETED FOUR OR MORE YEARS OF COLLEGE. MORE THAN FOUR IN TEN HAVE COMPLETED TWO OR MORE YEARS

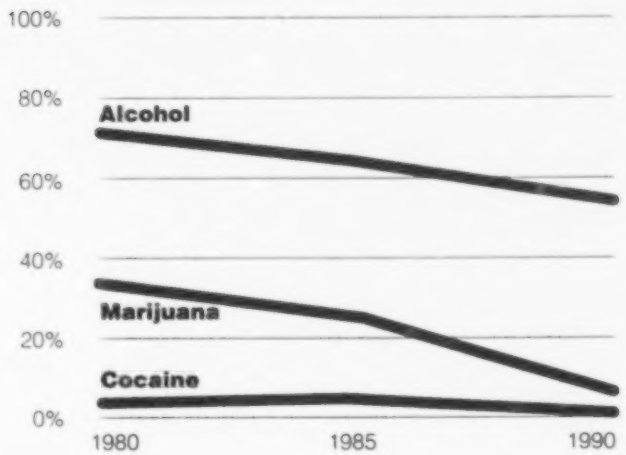


SOURCE: BUREAU OF THE CENSUS AND NATIONAL CENTER FOR EDUCATION STATISTICS, 1991

Trends in Student Drug Use

Percent of 12th graders who reported using the following during the previous thirty days, 1980 to 1990

DRUG AND ALCOHOL USE BY HIGH SCHOOL SENIORS HAS DECLINED NOTICEABLY SINCE 1980.



SOURCE: UNIVERSITY OF MICHIGAN, 1991

Goal Six

Safe, Disciplined, and Drug-free Schools

For students to perform effectively in school, their minds and bodies need to be drug-free. And for teachers and students to perform effectively in school, the school environment must be free of disruption. Here we highlight the extent to which students (rather than schools) are free of drugs, and present indirect evidence on the conduciveness of the school environment to effective teaching and learning.

Student Drug Use

- Since 1980 overall student drug use has declined noticeably. Alcohol use among high school seniors declined from 72 to 57 percent between 1980 and 1990. Marijuana use declined from 34 to 14 percent.
- Alcohol is by far the most commonly used drug among high school seniors. About one in three seniors reported drinking five or more drinks in a row during a two-week period.
- Rates of alcohol and marijuana use are substantially higher among White high school seniors than among Blacks and Hispanics. Among White high school seniors, 62 percent reported using alcohol over the previous thirty days, compared to 33 percent of Blacks and 49 percent of Hispanics. Sixteen percent of Whites reported using marijuana compared with 5 percent of Blacks and 11 percent of Hispanics.

Disciplined Schools

- About one-third of high school teachers felt they had little or no disciplinary control over students in their classrooms in 1988. About 40 percent also singled out student misbehavior as a disruptive influence on their teaching.
- Skipping school and classes is a common practice among high school seniors. In 1990, 30 percent skipped school and 33 percent skipped at least one class during the previous 30 days. About half of all high school teachers in 1988 identified student tardiness and class cutting as interfering with their teaching.

The Federal Role

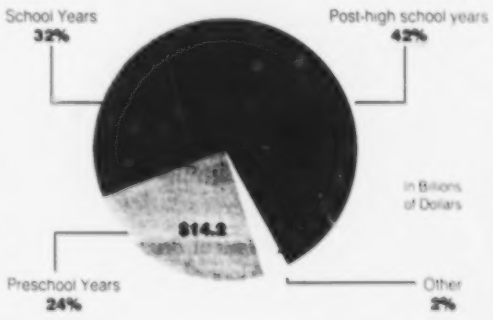
At the historic summit in Charlottesville, Virginia, in 1989, the nation's Governors and the President of the United States affirmed that all levels of government need to contribute to making America a nation of learners. Although states and localities are primarily responsible for providing the services that will help us meet the National Education Goals, the federal government also has an important role to play. That role includes offering special financial support to disadvantaged groups to enjoy equal educational opportunities and providing services and sponsorship of research and demonstration projects that foster educational excellence.

This report presents information for the first time on how much money is being spent by all departments and agencies of the federal government to support the achievement of the National Education Goals. Overall, 26 federal agencies spent about $59 billion in fiscal year 1991. About 42 percent of this amount supported individuals older than 18 through programs such as guaranteed higher education loans, the Job Training Partnership Act, and adult education. Another 32 percent supported activities for elementary and high school students such as school lunch programs and programs for children with disabilities and the educationally disadvantaged. And about 24 percent went toward children five years old or younger for programs such as Head Start and special nutrition programs for low-income children. The federal government also spent about $300 million on education-related research and development. Since 1989, federal spending in support of the National Education Goals has grown by about 13 percent in constant dollars.

While the Goals Panel intends to continue monitoring trends in federal financial commitments toward the National Education Goals in future reports, we also recognize the limitations of this approach. Descriptions of federal spending answer the question, how much? But they do not answer the more important (and difficult) question, how well? To assess the federal role in building a nation of learners, we still need to know whether federal spending is achieving its intended purpose and helping the nation better its educational performance.

Federal Support for the National Education Goals: 1991

Proportion of 1991 federal resources allotted to programs that improve the education/services during the preschool years, school years and post-high school years.



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